

(12) United States Patent Han et al.

US 8,550,689 B2 (10) **Patent No.:** (45) **Date of Patent:**

Oct. 8, 2013

(54) BACKLIGHT ASSEMBLY

Inventors: Sang-Sun Han, Asan-si (KR); Tai-Yun

Jung, Seoul (KR)

(73)Assignee: Samsung Display Co., Ltd. (KR)

Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 13/358,603

(22)Filed: Jan. 26, 2012

(65)**Prior Publication Data**

> US 2012/0206940 A1 Aug. 16, 2012

(30)Foreign Application Priority Data

Feb. 14, 2011 (KR) 10-2011-0012782

(51) Int. Cl.

F21V 33/00 (2006.01)

(52) U.S. Cl. USPC **362/634**; 362/97.1; 362/632

(58) Field of Classification Search USPC 362/632, 634, 97.1, 97.2, 97.3 See application file for complete search history.

(56)**References Cited**

U.S. PATENT DOCUMENTS

| 7,441,938 | B2 * | 10/2008 | Sakai et al 362/634 |
|--------------|------|---------|---------------------|
| 7,714,952 | B2 * | 5/2010 | Chang 349/58 |
| 2005/0036296 | A1* | 2/2005 | Kim et al 362/31 |

FOREIGN PATENT DOCUMENTS

| JP | 10096921 A | 4/1998 |
|----|-----------------|--------|
| JP | 2009198670 A | 9/2009 |
| KR | 1020060016542 A | 2/2006 |

^{*} cited by examiner

Primary Examiner — Laura Tso (74) Attorney, Agent, or Firm — Cantor Colburn LLP

(57) **ABSTRACT**

A backlight assembly includes a light emitting part, a light guide plate, a bracket and receiving container. The light emitting part generates light. The light guide plate includes a first side surface which receives the light, and a second side surface adjacent to the first side surface. The bracket is fixed to the second side surface of the light guide plate. The receiving container includes a bottom, and a sidewall perpendicularly extending from the bottom, and receives the light emitting part and the light guide plate. The sidewall includes combining portions which are combined with the bracket.

20 Claims, 7 Drawing Sheets

